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Memorandum on the Presence of Air in the Middle Ear as a Sign of Live Birth. By FRANCIS OGSTON, M.D., Assistant-Professor of Medical Jurisprudence, Aberdeen University.

IN the 'Monatsschrift für Ohrenheilkunde,' 1868, Dr. Robert Wreden, of St. Petersburg, in a series of articles on the condition of the ear at and soon after birth, directs the attention of medical jurists to the entrance of air into the middle ear, and the disappearance of the gelatinous substance which fills the tympanic cavity prior and up to the birth of the child.

He states that this substance disappears within twenty-four hours after birth; that a twelve hours' respiration is not sufficient to effect its complete disappearance; and concludes by suggesting that the occurrence of air in this situation might be of importance in a medico-legal point of view, as proving that respiration had taken place.

That these statements have been made without sufficient grounds, and that they require considerable modification, the following fifteen cases, collected partly by Dr. Alexander Ogston and partly by myself, seem to prove:

	Age of child.	State of the middle ears.	State of lungs.	Cause of death.	Other facts to fix term of life, &c.
1	14 weeks.	Filled with air.	Fully expanded.	Smothering.	Bronchitis.
2	9 weeks.	Filled with air.	do.	do.	do.
3	2 months.	Filled with fluid.	do.	do.	—
4	6 weeks.	R. air, L. muddy fluid.	do.	do.	Bronchitis.
5	1 month.	Filled with air.	do.	do.	—
6	4 weeks.	R. air, L. air and fluid.	do.	B r o n c h o - pneumonia.	—
7	8 days.	Filled with air.	do.	Bronchitis.	Lungs bulky, emphysematous.
8	3 days.	Containing air.	do.	Smothering.	—
9	2 hours.	Fluid and yellow substance.	Partly expanded.	Apoplexia-neonatorum.	Breathe ^d feebly about 2 hours.
10	New-born.	Containing fluid.	Expanded.	Smothering.	Meconium in large intestine.
11	New-born.	Filled with red fluid.	do.	Fracture of skull.	do.
12	New-born.	Containing fluid.	do.	Smothering.	Navel-string attached. Meconium in large intestine.
13	New-born.	Containing red fluid.	Partly expanded.	(?)	Meconium in large intestine.
14	New-born.	Containing air.	Expanded.	Smothering.	do.
15	New-born.	Containing fluid.	Unexpanded.	Stillborn.	—

I ought, perhaps, to have omitted the first six cases as not bearing directly on the subject, but I have thought it better to adduce them, as though most of the ears contained air, yet some of them contained fluid also, and in one (3) they were filled with fluid, although the child had lived two months, and there were no signs of catarrh in the respiratory tract to account for its presence. The fluid was probably catarrhal; but as it was not examined microscopically I cannot state positively that it was so.

The last nine cases, on the contrary, are those in which Dr. Wreden's proposed test should be expected to prove useful, but, as we see by the table, in only three (8, 7, and 14) was air found in the middle ears, although the lungs in all, with the exception of a stillborn immature infant, contained sufficient air to float in water, and from all air could be expressed when they were held under water.

The presence of catarrhal fluid in the middle ear might be misleading, but in these cases more or less air would be found along with it which would tend to prevent its being mistaken for the gelatinous matter found before birth.—F. OGSTON, Jun.